Supplier Quality Manual

ALL 5-1-1 Rev 6 dated 24 February 2021

Review		
Date	Review	Modified
20 January 2006	0	First Issue
13 April 2007	1	References inserted relating to compliance declaration and materials certificates; method for handling special features changed. Distinction between initial approval of the supplier; prototype samples for project validation; pre-production samples for PPAP product and process validation. Cancels and replaces ALL 5-1-2
19 March 2013	2	Up-date of the specifications. Adaptation of PPAP requisites to QS 900 4 ed. Cancels and replaces ALL 5-1-3
20 June 2018	3	Specification fully updated, inserted BIQS; CQI, Cogent requirements, Added R@R and details on lot identification procedure
27 November 2018	4	Changed paragraph regarding use loan equipment
02 November 2020	5	Updated par 4.1 'Quality management system', par 4.2 'Supplier selection and approval' with process audit and potential assessment methods according to VDA 6.3, par 4.3 'Periodic supplier assessment' in Vendor Rating table, par 4.4 'Audits and visits care of the supplier' with new assessment methods and product audits for components to drawing, updated PPAP requirements table in par 5.2.10 inserting packaging sheet, updated par 5.2.11 with details on approval by way of exception to pre-series sampling, updated par 6.2 with nonconformity management on packaging, updated par 6.3 with 3D and 8D delivery timescales, added par 6.4 management of special supply status, updated par 10.1 and 11 with references to ALL 5-1-7 Supplier Logistic Specifications
24 February 2021	6	Updated par 4.1 with request of ISO 45001:2018 certificate, par 4.4 with more detailed requirements related to annual requalification, par 6.3 with request to evaluate occurrence and non detection in 8D report, par 5.2.9 with request of considering rework in process flow diagram, PFMEA and Control Plan, added some clarification in par 5.2.1

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CONTENTS

1. PURPOSE

SPAL Automotive proposes itself as a company of EXCELLENCE capable of guaranteeing the maximum satisfaction of its customers. In order to gain and maintain this objective, the role of the suppliers is fundamental.
The Supplier Quality Manual provides the bases for establishing and building a supply relation with a "**zero defects**" objective.
These specifications address the suppliers whose activities involve design, production and sales. With regard to partial activities (for example: only marketing, only production and sales), the suppliers will only apply the parts of the specifications pertaining to the same.
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This document is an integral part of the General Purchase Terms and Conditions ALL 5-1-6.

2. SCOPE OF APPLICATION

These specifications apply fully to:
- new suppliers
- suppliers who already have a supply relationship underway with SPAL Automotive, in the event that one of the conditions indicated in point §5.2.1 below should occur.

Therefore, the products, processes and quality management systems of the suppliers relating to which at present a supply relationship is already underway with SPAL Automotive, are considered as automatically approved until one of the conditions as per §5.2.1 occurs.

The Supplier is responsible for the choice it makes with regard to any Sub-contractors and will have to ensure that the latter implement a control system compliant with this document, in any event undertaking responsibility vis-à-vis SPAL Automotive for the quality of the end product supplied.
The Supplier is also obliged in any event to extend all the obligations and requirements envisaged to its charge in this document, to its sub-contractors.

3. EXPECTATIONS

The products purchased must be compliant with the requisites expressed in the following documents:
- Purchase order;
- Technical drawing;
- Technical specifications;
- General purchase terms and conditions and enclosures.

The suppliers are obliged to:
- Demonstrate compliance with the drawings, performance and reliability requirements, requirements in terms of capability and process controls;
- Know and review all the requirements linked to the product;
- When requested, have the resources and the expertise available for taking part in the APQP development activities;
- Have a system which guarantees the control of the modifications in a prompt and accurate manner;
- Have a quality management system in place certified by a third party body;
- Keep all the product and process documentation and make it available upon request;
- Have the resources and the skills capable of carrying out an effective and efficient analysis of the problems causes and handling the corrective action according to 8D methodology;
- Provide written notification of all the situations which may negatively influence the quality of the product supplied to SPAL Automotive.
- Require all the documentations (technical specification, procedure, instructions, attachments mentioned in supplied documentation (CSR, drawings, Supplier Quality Manual) to assure the proper and complete comprehension of all the SPAL requirements.

4. SUPPLIER VALIDATION

4.1. QUALITY MANAGEMENT SYSTEM

All the suppliers must implement a documented and effective quality management system which identifies, co-ordinates and controls all the key activities necessary for designing, planning, producing and delivering the compliant product.
The suppliers must be certified by an independent third party body, in accordance with at least one of the following standards:

- ISO 9001 Quality management systems - Requirements
- IATF 16949 Quality management systems - Particular requirements for mass production and production of spare parts for the automotive industry

A copy of the certificate must be sent to Supplier Quality Assurance (SQE).
The Supplier is obliged to immediately inform SQE if the third party certification has expired or has been revoked.
New suppliers, without ISO 9001:2015 certification, which SPAL, for strategic reasons, considers it necessary to include, can be used ONLY for components NOT intended for automotive customers.
In any case, they must undergo system audits (MOD 0-6-2) by SQE at the time of qualification and at least every three years thereafter, so as to demonstrate minimum compliance with the requirements.
In any case, the use of non-certified suppliers must be formally accepted by the Customer, who must be duly informed.
If in possession of environmental certification ISO 14001:2015 and Health&Safety ISO 45001:2018, a certificate must be sent.

4.2. SELECTION AND APPROVAL OF THE SUPPLIER

Each new supplier is validated by SPAL Automotive via an initial approval.
The Purchasing Department sends the MOD 5-1-5- check list to all the new suppliers, with the aim of assessing the suitability of the organisational and manufacturing structure of the supplier.
The supplier must return the check list duly filled in to the Purchasing Department which assesses it as a team with SQE, the Safety and Environment dept. and the technical bodies. Based on the outcome of the checklist evaluation, SQE plans a Supplier Potential Assessment at the supplier's plant. The outcome of this audit is formalised by SQE on MOD 0-6-25 or P1 - Potential Assessment according to VDA6.3. This audit is mandatory for all suppliers who manufacture products to SPAL drawings or specifications.
Based on the result of the audit conducted on MOD 0-6-25, the supplier is evaluated:

- < 69% unqualified supplier
- 70% < outcome < 89% qualified supplier with reservation
- > 90% fully qualified supplier

If the audit is conducted according to the VDA 6.3 standard, the supplier is considered qualified if the outcome is green, qualified with reservation if the outcome is yellow, not qualified if the outcome is red. Unapproved suppliers, if deemed strategic, can be guided through a process of improvement to achieve qualification.
For suppliers of catalogue components, SQE, on the basis of the risk assessment that emerges from MOD 5-1-5 and the supplier's system certification, can decide whether:

- to perform a Supplier Potential Assessment
- to require the Supplier Potential Assessment to be completed by the supplier
- not to perform any audits.

The Purchasing Department can issue orders for samples to the approved suppliers.

4.3. PERIODIC ASSESSMENT OF THE SUPPLIER

The quality of the supplies and the service provided to SPAL Automotive determines the assessment of the Supplier, formalised in a Vendor rating indicator, calculated monthly, which takes into consideration:

- the quality level, inclusive of the certifications of the supplier;
- the service level;
- the price.

To each of the 3 areas (Quality, Service and Price) is given a score from 1 to 5, according to the criteria shown below:

Area	Indicator	Thresholds	Score	Weight (%)
Quality (1)	A.QUAL1 (supplier ppm) (NC quantity / delivered quantity) x 1,000,000	A.QUAL ≤ 50	5	35
		50 < A.QUAL ≤ 500	4	
		500 < A.QUAL ≤ 1,000	3	
		1.000 < A.QUAL ≤ 5,000	2	
		A.QUAL > 5,000	1	
Quality (2)	A.QUAL2 Supplier with quality management system (QMS) certified by third institute	QMS certified according to IATF 16949:2016	5	10
		QMS certified according to ISO 9001:2015 and ISO 14001:2015	4	
		QMS certified according to ISO 9001:2015	3	
		QMS certification in progress	2	
		No QMS	1	
SL Service Level on globally ordered quantity	Total quantity supplied in time (for completely executed lines only) / total quantity of order lines expired and delivered in advance *	SL < 0.70	1	40
		0.70 ≤ SL< 0.80	2	
		0.80 ≤ SL< 0.90	3	
		0.90 ≤ SL< 0.95	4	
		SL ≥ 0.95	5	
Price	PUR R005 % Efficiency of purchase prices **	PUR R005 ≥ +3%	1	15
		0% ≤ PUR R005 < +3%	2	
		-3% ≤ PUR R005 < 0%	3	
		-5% ≤ PUR R005 < -3%	4	
		PUR R005 ≤ - 5%	5	

* the date of reference is the actual date of delivery of the receipt that closes the order line
** calculated on the weighted average price of the year in progress compared to the weighted average of the previous year

Furthermore, upon the occurrence of each of the cases listed below with impact on the customer, the assessment of the supplier's VR is reduced by 20 points:

- Customer's production line stop
- Notification of customer's CSL1 & CSL2
- Customer performs actions in the field and is forced to recall pieces from field.

Given the score attained using the above method, the suppliers are classified as follows:

- 350 < Score < 500: Suppliers under control
- Score < 350: Suppliers with regard to whom targeted improvement actions are needed by Purchasing and Supplier Quality according to the service (service, price, quality), unless a different decision is taken by the Quality Manager.

The Vendor Rating assessment is sent annually to the suppliers together with the targets defined for each single supplier by SQE, PM and QM.
Every six months, an internal revision of data is made to monitor the supplier trend and if necessary specific actions.
The overall rating of each supplier is completed by the assessment, in a Clinic Card within SPAL Automotive, of the following aspects:

- Geographic proximity
- Single Source risk
- Key supply aspects (investments and/or risks in tracing alternative source)
- Product risk (SPAL Automotive is a sole supplier vis-à-vis its customers)
- Buffer Stock (presence of Buffer/Safety Stock)
- Supply inconveniences

- Free Pass
- Environment and safety
- Reaction times (flexibility and ability to react to market needs)
- Delivery plans
- Use of the Iungo system
- Participation (willingness with regard to visits and meetings within SPAL Automotive)
- Price competitiveness
- Transport methods
- Payment methods.

4.4. AUDITS AND VISITS CARE OF THE SUPPLIER

SPAL Automotive reserves itself the right to carry out audits care of the supplier, during working hours and providing notice.
Such audits may be carried on with other company departments (e.g., Product Engineering, Environment Management System Manager or others agreed from time to time).
The process audit is performed by means of recording objective evidences on MOD 0-6-26 for production audits in series or according to VDA 6.3 standard.
At the discretion of the SQE to more deeply investigate certain topics, the auditor shall be entitled to also use check list BIQS GM 1927-30.
The following items will be analysed:

- the application of the quality management system requirements;
- the production process for the products purchased by SPAL Automotive: in this case, the quantity of pieces must be significant, so as to be able to assess the production under series conditions;
- the technical documentation relating to the product qualification during the PPAP;
- the inventories and the logistical management of the product purchased by SPAL Automotive.

On the basis of the collected evidence, the result of the process audit, determined according to the worst result obtained from the occurred aspects, is shown on the table. In particular, the assessments from 1 to 4 permit identifying the status of the supplier.

SUMMARY RESULT OF AUDIT	DESCRIPTION
4 IMPLEMENTED ACTIVITY	The supplier's production process falls within the expected standard. No nonconformities found.
3 ACCEPTABLE WITH POTENTIAL IMPROVEMENT	No deviation from expected standard found. Completed operations can be improved and comments are made to the supplier.
2 TO IMPROVE	Nonconformities have been found, without any serious effect on the product. The supplier takes all measures suitable for obtaining the improvement and draws up a plan of corrective measures. Such action plan must be sent to the SQE of SPAL Automotive for acceptance and a copy must be sent to the Purchasing dept. within the date requested by SQE. SQE can define the possibility of a subsequent visit to the supplier, to determine whether the required corrective actions have been implemented.
1 JOB STOPPER	Inadequate product management was found during manufacture with risk of downtime or shipment of non-conforming products by SPAL Automotive. SQE requires the supplier to immediately establish all precautionary measures in a corrective action plan which must be sent to SQE for acceptance with copy to the Purchasing dept. within the date requested by SQE. It is the responsibility of SQE in agreement with PUR to evaluate any suspension of supplies, 100% sorting according to the general supply specifications. SQE is also entitled to suspend AUDIT until the conditions are modified. SQE can define the possibility of a subsequent visit to the supplier, to determine whether the required corrective actions have been implemented.

During the process audit, aspects relating to the working environment, such as workers' safety, cleanliness of the working environment, environmental aspects are also checked (point 5E).
This aspect also contributes to define the outcome of the audit as specified above. It should be remembered that for reasons of inadequate safety, the auditor is entitled to interrupt the audit at any time and re-plan it only once safety conditions are adequate.

In addition, SPAL Automotive reserves itself the right to carry out audits care of sub-contractors which carry out important phases for the SPAL Automotive product. This audit does not release the supplier in any way from the responsibility to manufacture and ship compliant products.

REQUALIFICATION: for components realised according to SPAL Automotive drawing (excluding catalogue products), requalification is required unless otherwise agreed with SPAL SQE. Requalification must include dimensional measurements at least on all special characteristics indicated on drawing and material certificates 3.1 according to UNI 10204 or according to the requests of SQE.

4.5. ADDITIONAL REQUIREMENTS

The organisation must send the supplier all applicable cogent requirements, asking them to send in cascade all applicable requirements along the supply chain, up to where the cogent requirements are applicable.

Suppliers are required to undergo an annual audit of special production processes to determine effectiveness (when applicable)

The applicability and effectiveness of these processes can be determined using the current version of CQI standards.
The supplier can also carry out a self-audit, prepare a plan of action where necessary and keep records of all performed activities. **Such activity has to be performed yearly with evidence of result sent to SPAL SQE.**

Below are the CQI reference to be followed, obviously in relation to own production process:

Heat Treating Processes	CQI-9 Heat Treating System Assessment
Planting Processes	CQI-11 Planting System Assessment
Coating Processes	CQI-12 Coating System Assessment
Plastics Moulding Processes	CQI-23 Moulding System Assessment
Soldering Processes	CQI-17 Soldering System Assessment
Casting Process	CQI-27 Casting System Assessment

5. SAMPLE APPROVAL REQUIREMENTS

The validation of the product ensures that the product observes the technical specifications required by SPAL Automotive, while the qualification of the product and the process, carried out in accordance with the matters defined in the PPAP (Production Part Approval Process) procedure ensures that the production process implemented is able to manufacture constant and acceptable quality products.
Each Part Number supplied is approved by SQE via:

1. **prototype samples** (product validation): this applies in cases of new products, § 5.1.
2. **pre-production samples** (product-process validation): this applies if the conditions as per §5.2.1 occur.

5.1. APPROVAL OF THE PROTOTYPE SAMPLES FOR PRODUCT VALIDATION

On receipt of the order for prototype samples from the Purchasing Department, the Supplier checks the satisfaction of the requisites expressed in the attached technical documentation and, if necessary, interfaces with the technical/program manager concerned, also specified in the order.
The prototype samples must be addressed for the attention of SQE and clearly identified as such, indicating:

- The SPAL Automotive Part Number
- Design/drawing reference and its review index
- SPAL Automotive order number reference
- Date of production
- Equipment used (Prototypal process or final process)
- Prototypal or series materials

- Measurement and/or functional report

In the event of a positive outcome of the product validation, the technical/program manager informs the supplier and guarantees that the final drawings are issued, along with the article code, and all the technical documentation necessary, before starting the subsequent stage of approval of the pre-production samples.
The approval phase of the pre-production samples is accessed only if the product has been suitably defined by the final design/drawing, by the technical specification and by the article code.

5.2. APPROVAL OF THE PRE-PRODUCTION SAMPLES FOR PRODUCT-PROCESS VALIDATION

5.2.1. CLAUSES FOR SAMPLES

The supplier must always present pre-production samples for product-process validation in the following cases:

1. New product for SPAL Automotive;
2. Modified products, if the modification has an impact on the special characteristics, heat/surface treatments, electronic components;
3. Product re-sampling due to not having passed the first pre-production sample approval.

The Supplier **must always inform** SQE, **before** manufacturing the products, of the occurrence of one of the following situations:

4. Project modifications which do not affect the special features;
5. Introduction of a new production technology.
6. Products obtained using alternative processes or materials, already indicated on the initial technical documents;
7. New equipment for increasing the production capacity, or replacing the existing equipment at the end of its useful life;
8. Significant changes in the production process, including therein equipment, methods, flows;
9. Transfer of the production unit;
10. Change in the Subtier of components which have special features;
11. Upon the request of SPAL Automotive further to serious non-compliances;
12. Re-activation of the supplies after suspension due to quality problems;
13. Re-activation of equipment after inactivity of more than 12 months.

In situations 4 to 13, SPAL Automotive will, case-by-case, assess whether to proceed with a complete or partial re-validation of the product-process and will inform the supplier whether it is necessary to send new pre-production samples, complete with PPAP documentation.

The Purchasing Department issues the pre-production sample order, attaching:

- A drawing of the product
- Any Technical Specifications referring to the supply
- Volume targets, Lead Times, quality, service, full up and running price objectives,
- The packaging, identification and delivery methods
- Quantity
- Date of delivery.

The acceptance by the Supplier of the pre-production sample order, without advancing a reservation, validates the feasibility and the conformity with the specifications referred to in said order and the delivery of the first set of samples.
In any case there are discrepancy into documentation or specifications are incomplete or unclear, Supplier has to clarify any doubts with SQE, before assembling samples parts.

5.2.2. INITIAL SAMPLES: QUANTITY AND ACCOMPLISHMENT CONDITIONS

The pre-production samples are selected randomly during initial production by means of quantities significant and representative of the standard production.
The quantity is defined in the documentation indicated in the SPAL Automotive purchase order and confirmed in the sample purchase order.
The pre-production batch manufactured will be sufficient for satisfying not only the quantity requested in the SPAL order but also so that the Supplier can carry out a statistical study on the special characteristics of the product or the parameters of the process capable of confirming the capabilities requested (ref. §5.2.6).

5.2.3. DIMENSIONAL DATA, ANALYSIS OF MATERIALS, PERFORMANCE RESULTS AND RELIABILITY TESTS

Unless otherwise communicated by SPAL Automotive, the supplier checks, on at least 5 pieces, all the characteristics indicated in the technical drawing of SPAL Automotive. Each characteristic is assigned a unique position number and this number is clearly indicated in the dimensional and functional report which, together with the drawing that shows the numbering of the characteristics, must be sent to SQE, within the PPAP dossier.
All the controls carried out must uniquely refer to the samples from which they were obtained.
The PPAP pieces (the pieces that have been dimensionally and functionally checked) are identified and numbered by the Supplier and delivered to SPAL Automotive.

5.2.4. CHECK OF SUPPLIER'S PRODUCTION CAPACITY

During the PPAP phase, a request could be made to perform a Run@Rate directly at the supplier's, previously agreed, in order to determine the production capacity of the supplier in relation to the product to which the PPAP refers.

5.2.5. AESTHETIC CHARACTERISTICS

SPAL Automotive may request the assessment of the aesthetic characteristics. The acceptability criteria are defined by means of master pieces which will have to be delivered together with the initial samples for acceptance.
Following approval of the initial samples, the masters are kept by the Supplier and by SQE as reference for the control during standard production.

5.2.6. SPECIAL CHARACTERISTICS

The supplier undertakes to implement processes able to satisfy the required specifications for special characteristics
See IO 2-1-22 rev 0

5.2.7. SHORT-TERM (PRELIMINARY) PROCESS STUDIES AND LONG-TERM PROCESS CAPABILITY

See IO 2-1-22 rev 0

5.2.8. MEASUREMENT SYSTEM ANALYSIS

With regard to each gauges that measure the special features, the supplier must carry out an R&R Repeatability and Reproducibility study in accordance with a recognised international standard, such as MSA AIAG 4th Edition.
When the PPAP sample level requires them, these studies are sent to SPAL Automotive in the qualification file.
Unless specified otherwise, the maximum R&R value acceptable is 10%. During the PPAP phase, a request could be made to directly perform R&R at the supplier's, agreed in advance.
In the event of analysis with R&R over the limit, SQE must be informed and contacted for approval. Gauges for attributes, used for the measurements of special characteristics, are subject to R&R studies and the method is agreed between the supplier and SQE.
If the analysis of the measurement system has a negative result, the supplier defines a plan of action and must not use these instruments for the measurement of special characteristics (either in the capability studies, or for the control of the product). In the event of special instruments not available care of the Supplier, the latter adopts all the measures for entrusting the gauging to qualified external Laboratories.

5.2.9. PROCESS FLOW DIAGRAM, FMEA AND CONTROL PLAN

The Supplier draws up a Process Flow Diagram which clearly shows the phases of the production process, including rework, from receipt of the material until shipment. In the event that one or more phases are carried out externally, these phases must be clearly identified.
Within an inter-functional team, the supplier carries out Failure Mode Effects Analysis which may occur during product and process development, according to AIAG&VDA FMEA Handbook. In the event of design of the product supplied to SPAL Automotive, the supplier must develop the Design FMEA (DFMEA), while the development of the Process FMEA is always required (PFMEA), including rework phases. DFMEA and PFMEA are "live" documents which need to be up-dated in all cases of product and/or process modification. They are also reviewed for improvement activities, analyzing and implementing corrective action aimed at lowering the IPR.
The FMEAs reveal the features and the controls to be taken into consideration in the pre-production and production control plan. During standard production, the control plan must be followed, updated when necessary and noted. Unless

agreed otherwise between the parties, the control plan must be drawn up in AIAG format. The control plan clearly and unequivocally refers to the product; control plans for product families are permitted.
In the event of updates, SQE must be informed in advance for approval.

5.2.10. PPAP SAMPLE PRESENTATION DOSSIER

The Supplier must present the pre-production samples together with the dossier which includes various documents on the basis of the sample level required by SQE.
Unless requested otherwise, level 3 is the required level (ref. PPAP 4ed AIAG).

REQUIREMENTS		DESCRIPTION		PPAP LEVELS			
			1	2	3	4	5
1	Reference technical documentation, of the Supplier and SPAL Automotive	Drawings and technical specifications complete with code, article, modification level and review date.	P	T	T	*	P
2	Authorised project amendments, not yet made official in the project documentation, but already introduced on the product. It is always necessary to indicate the reference in the Approval Request (Enclosure 1), if the PPAP level requested does not envisage the supply of these documents.	It is always necessary to indicate the reference in the Approval Request (Enclosure 1), if the PPAP level requested does not envisage the supply of these documents.	T	T	T	*	T
3	Engineering approval of the customer, if required		T	P	P	*	T
4	Project FMEA ([4])		T	T	P	*	T
5	Project flow chart		T	T	P	*	T
6	Process FMEA ([4])		T	T	P	*	T
7	The control plan includes all the special *characteristics* linked to the product/process ([5])		T	T	P	*	T
8	Documentation of the Measurement System Analysis (MSA) for gauges used in Control Plan		T	T	P	*	T
9	Dimensional results		T	P	P	*	T
10	Results of the analysis on materials		T	P	P	*	T
11	Results of the functional tests		T	T	P	*	T
12	Qualification documentation of the external Laboratories which carry out the checks for the approval of the component		T	P	P	*	T
13	Appearance Approval Report (AAR) – if applicable		P	P	P	*	T
14	Samples to be sent to SPAL (3)	Pieces, on which the controls have been carried out	T	P	P	*	T
15	Reference master piece (to be kept care of the supplier)	A piece, on which the controls have been carried out, which must be kept care of the supplier	T	T	T	*	T
16	Preliminary studies of the process capability for the special characteristics envisaged by the control plan.		T	T	T	*	T
17	Registrations of compliance with specific requisites, when requested by SPAL	Example: ministerial approval	T	T	P	*	T
17/A	Picture of the identification label affixed on the equipment on loan		T	T	P	P	T

REQUIREMENTS		DESCRIPTION		PPAP LEVELS			
			1	2	3	4	5
17/B	Conflict Minerals statement and complete CMRT form		T	T	P	P	T
17/C	Information relating to the elementary composition of the materials forming the products/components: I.M.D.S	*For greater details, please refer to enclosure 5*	T	T	P	P	T
17/D	Declaration of compliance with EU Regulation No. 1907/2006 REACH		T	T	P	P	T
17/E	For all the chemical products, Safety Fact Sheets in accordance with the provisions contained in Article 31 of Regulation No. 1907/2006 (REACH), as amended by Regulation No. 453/2010 and in Regulation No. 1272/2008 (CLP).		T	T	P	P	T
17/F	Name of the person acting as PSB in the company		T	T	P	P	T
17/G	Packaging form	MOD 5-1-20	T	T	P	P	T
18	Approval request (PSW)	*Form by means of which the supplier requests sampling approval*	P	P	P	P	T

P = to be presented to SPAL Automotive
T = Keep care of the supplier. The documents must be available and possible to send to SPAL Automotive upon request
* = to be presented upon request by SPAL Automotive for approval
([1]) SPAL Automotive may exclude the delivery of the samples
([2]) If the sample, due to its size-related features, is difficult to transport, it is possible to keep it for checking care of the supplier, as per agreements with SPAL Automotive.
([3]) Quantity to be agreed with SPAL Automotive, typically 5 pieces and in the event of multi-cavity moulds: at least 1 piece for each figure.
([4]) FMEA to be presented as per agreements with SPAL Automotive
([5]) Control plans can be accepted for product families, provided the features of the process are equivalent: (e.g. process capability, etc...)

5.2.11. ISSUE OF AUTHORISATION AND NOTIFICATION OF THE SUPPLIER

SQE coordinates the pre-series sampling product and document inspection activities. PPAP approval is issued by Quality Manager, successfully closing sampling (see IO 0-5-2). SQE also completes the PPAP approval form of the supplier (PSW), attaches it to the sampling file and sends it to the supplier. In case of absence of any supplier forms, MOD 5-1-17 is sent to the supplier for approval.
The outcome can be:

COMPLETE APPROVAL: The products are compliant with the SPAL Automotive technical specifications. The Supplier **is authorised** to deliver the standard production batches.

REFUSED: The products are not compliant with the SPAL Automotive technical specifications. The Supplier **is not authorised** to deliver the standard production batches. Any products delivered by the supplier in this phase will be charged to the supplier as non-compliant deliveries.

WAIVER: Pre-series sampling which is not fully satisfactory may be accepted by way of **temporary waiver** by SPAL Quality Manager. Within the expiry period defined for the waiver, the component must be resampled with a subsequent pre-series sampling.

If they do not meet the necessary conditions for complete approval within the established timescales, the Supplier must submit a Temporary Approval Request (ref. enclosure 2) to SQE, complete with information regarding:
- cause of origin of the non-compliance problems
- immediate corrective action
- action plan, with application timescales, so as to obtain final approval.

This request is sent in copy form also to the Purchasing Department.
If SPAL Automotive accepts, gives the validity limits of this approval (time or quantity) on the Temporary Approval Request.

5.2.12. SAMPLES DEPOSITED

With regard to those products for which the performance features cannot be expressed or qualified by drawings, SPAL Automotive reserves itself the right to keep the lead-sealed samples deposited care of its warehouse, after having qualified compliance and/or functionality.
A lead-sealed specimen of the same sample is kept by the Supplier, who is obliged to maintain it, for the purpose of being able to compare the performances, if over time Spa Automotive should dispute a change with respect to that validated in the initial sample phases.

6. NON-COMPLIANCE MANAGEMENT

Under no circumstances may the Supplier send non-compliant pieces without having received written authorisation **in advance** from SQE.

6.1. HANDLING OF NON-COMPLIANT MATERIAL CARE OF THE SUPPLIER

The Supplier must ensure that the final checks in the control plan are always carried out. The records of the controls are stored and made available to SPAL Automotive, upon the request or at the time of audits carried out care of the supplier's premises.
In the event that non-compliant pieces are detected, the supplier must avail of a system which rigorously ensures the identification and state of compliance of the same.
The Supplier may request SQE in writing for authorisation to proceed with the supply of non-compliant products, indicating on the Exception/concession request form (Enclosure 7):

- Code and name of the part
- Characteristic and nature of the deviation
- Number of pieces on which the deviation has been detected.

The material cannot in any event be delivered or invoiced by the Supplier to SPAL Automotive, before notification of the authorisation provided by the latter.
At the time of delivery of the material, the supply must be identified as "SUPPLY UNDER WAIVER" by placing an identification box label on the packaging and a copy of the waiver document authorised by SPAL Automotive SQE.

6.2. HANDLING OF NON-COMPLIANT MATERIAL DETECTED CARE OF SPAL AUTOMOTIVE

SPAL Automotive reserves itself the right to inform the Supplier, by sending a Non-compliance Report, of any Non-compliances of the products supplied, detected after delivery.
The opening and processing of the claim will always be done in a "zero defect" acceptability perspective; therefore, the supplier is called upon to take all necessary containment actions (3D dispatch) and problem-solving actions (8D dispatch) irrespective of the quantity of material found as non-conforming or the general quality levels of the previous supplies.

On the basis of various criteria (for example: critical nature of the non-compliance, quantity, etc....), SQE may decide to:

- return the material to the supplier;
- scrap the material;
- request the supplier for the sorting and/or re-working of the material;
- carry out the sorting and/or re- working of the material. In this case,
- accept the material under concession.

The damages deriving from Non-compliances (sorting, costs for urgent shipments to the customer of SPAL Automotive, line downtime costs, recall campaigns, etc.), are charged to the Supplier whose responsibility has been ascertained.
In case of quantity anomalies (Transport Document accepted with reservation), the Incoming Material Department will promptly notify what has been reported to the supplier; furthermore, in case of supply problems involving erroneous code or damaged packaging, besides signing the Transport Document with reservation, it notifies the Incoming Quality Inspection to carry out checks, open a claim and send nonconformity report, for which the standard management procedure will be followed shown in par. 6.3 below.

6.3. HANDLING OF CORRECTIVE ACTION

SPAL Automotive requires that the supplier deals with the analysis of the non-compliances following the 8D method. The containment action (3D) must be formally sent to SQE within 24 hours of the indication of the non-compliance. The analysis of the root cause must be carried out within the timescales requested by SQE, using method '5Why' and/or

Ishikawa Diagram. Root cause analysis shall identify cause due to occurrence (‘*why it happens*’) and cause due to ‘not detection’ (‘*why it has not been detected*’). 8D complete with actions must be sent within 10 workdays from receipt of SPAL nonconformity report. The 8D is considered completed only when all the corrective and preventive action has been completed and the effectiveness has been checked by SPAL SQE.

6.4. NOTIFICATION OF SPECIAL SUPPLY STATUS

In case of very serious nonconformity, or which is repeated over time, the supplier will undergo the following procedure in order of increasing seriousness:

- CSL1: 100% Certification of non-compliant characteristic by Supplier
- CSL2: 100% Certification of non- compliant characteristic for at least 1 month by a third-party paid by Supplier (in case of serious and/or repeated nonconformities and in case of nonconformities on characteristics in CSL1 regimen)
- suspension of supply,
- Supplier in Black List.

The duration of the CSL1 or CSL2 procedure is defined by SPAL Automotive, in terms of time period or number of pieces, according to the problem. The minimum duration is the time required to check the pieces necessary to cover at least one month of SPAL production.
Notification to the supplier is sent by SQE through MOD 5-1-21, in which the following aspects are defined:

- Characteristic check methods
- Methods of identification of the pieces and of the packaging undergoing CSL recheck
- Frequency and method of sending check results to SQE
- Duration
- Exit criteria

Approval of suspension of the CSL procedure is defined by SQE and Quality Manager, based on the results of the checks carried out, during which nonconformities must not have been found.

In case of violations of the CSL rules, SPAL Automotive Srl will evaluate the suspension of the supply and the Supplier can be included in Black List.
In case of serious and/or repeated nonconformities leading to CLS2 status, SPAL Automotive Srl may request the suspension of the Supplier's certification, communicating the situation to the third-party quality system certification body.

7. HANDLING OF THE MODIFICATIONS

The Supplier cannot carry out any modification on the product or the production process without having informed SPAL Automotive’s SQE in advance and in writing and having received written authorisation from the same.
If the modifications are authorised, they must be handled respecting the pre-production Sample regulations as indicated in §5.2.

8. EQUIPMENT

8.1. HANDLING OF THE EQUIPMENT

All the equipments are subject, at regular intervals, to maintenance and calibration of the ~~gauges~~ installed, so as to ensure the absence of any functioning defects. Records of the maintenance are kept and filed.

8.2. SPAL AUTOMOTIVE EQUIPMENT UNDER LOAN FOR USE

If SPAL Automotive makes equipment to be used for the manufacture of the products under supply available to the Supplier, ex-works, unless agreed otherwise, the Supplier must carry out the maintenance and cannot, for any reason, tamper with or modify the same without the prior authorisation of SPAL Automotive. All the equipment on loan of use can be used only for the processing of orders of the purchaser.
The word ‘equipment’ also refers to moulds.

Equipment on loan of use can be made by SPAL, by the supplier itself or by another supplier.
All equipment on loan of use can only be used to process the customer's orders.
All equipment granted on loan of use by the customer is and remains the customer's property. On it, the Supplier must obtain and affix a **LABEL (on metal support)** showing:
- equipment/mould code (FIXED ASSET)
- indication of SPAL as owner
- year of manufacture.

The equipment asset code data will be notified in the order form by SPAL Automotive Purchasing Dept.
The Supplier is responsible for ensuring that the label does not become detached from the equipment for any reason. Should this happen, it is the Supplier's responsibility to procure another label and affix it to the equipment.
The Supplier is responsible for sending SPAL SQE a photo of the label attached to the equipment within the PPAP file, as shown in the table in par. 5.2.10 above.
The transfer of equipment to subcontractors is only permitted with the prior written authorisation of the customer.
The supplier undertakes to commission qualified personnel from its own company or third parties to service the equipment.
All maintenance activities involving the interruption of the use of the equipment shall require the obligation to agree on stocks with SPAL Production Planning and communication to SPAL SQE.

8.1. OPTION ON EQUIPMENT MADE AND BELONGING TO THE SUPPLIER FOR MANUFACTURING PARTS TO SPAL AUTOMOTIVE DRAWING

The Supplier acknowledges that the equipment which it will avail of for the execution of the supplies in favour of SPAL Automotive is intended for the manufacture of the products which are the exclusive industrial property of SPAL Automotive.
Consequently, the Supplier acknowledges SPAL Automotive an option to purchase this equipment at a price which will be agreed as and when in relation to the depreciation and/or actual condition of said equipment. This purchase option is understood as irrevocable and may be transferred by SPAL Automotive to third parties.

9. HANDLING OF PRODUCTS FOR PROCESSING FROM SPAL AUTOMOTIVE

The Supplier checks the identification, nature, quality and state of the packaging of the containers of all the products received for processing from SPAL Automotive.
The Supplier is responsible for their safekeeping and their conservation in its warehouse, as well as the conservation and safekeeping of the equipment, packaging and/or any property of SPAL Automotive informing the Purchasing Department of any losses and/or damage to said property.

10. TRACEABILITY, IDENTIFICATION AND REGISTRATIONS

See IO 2-1-22

10.1. IDENTIFICATION

Each product must be clearly identifies and its production batch must be present, to ensure traceability.
With regard to identification and labelling specifications, all SPAL Automotive requirements are contained in ALL 5-1-7 Supplier Logistic Specifications.

11. PACKAGING

The product supplied must be packaged in such a way as to ensure the integrity during transportation, handling and warehousing, guaranteeing the compliance with the Packaging specifications defined at the start of the supply relationship (if any). Any changes to the agreed methods must be authorised by SPAL Automotive in writing.
Any changes to methods agreed and accepted in PPAP must be authorised by SPAL Automotive in writing.
With regard to wrapping, packaging specifications, all SPAL Automotive requirements are contained in ALL 5-1-7 Supplier Logistic Specifications.

12. ADDITIONAL REQUIREMENTS FOR ELECTRONIC COMPONENTS

Unless authorised in advance by SPAL Automotive, the supplier cannot:
- deliver electronic components with a DATACODE of more than two years with respect to the delivery date;
- deliver electronic components originating from brokers.

13. ENVIRONMENT AND SAFETY

Observance of the rules, regarding safety and environment, envisaged by the legislation in the Supplier's country is an aspect of primary importance for SPAL Automotive.
Suppliers who have endowed themselves with a management system certified by a third party body, in accordance with the following international standards, are preferred:

- ISO 14001 Environmental management systems – Requirements
- EC Regulation No. 1221/2009 Voluntary compliance with a community eco-management and audit system (EMAS)
- OHSAS 18001 Occupational Health and Safety Standard - Requirements

The possession of these certifications is considered in the calculation of the supplier's Vendor rating.
The supplier is however requested and may be assessed at the time of the audit, to operate so as to minimise the impact on the environment and limit the use of natural resources, in favour of renewable energies.

14. ENCLOSURE 1: GLOSSARY AND ABBREVIATIONS

8D: indicates the process for resolving the problem carried out following 8 method

APQP: Advanced Product Quality Planning - ref. www.aiag.org

SQE: Supplier Quality Assurance

A&R: *Capability index: (Accuracy and Repeatability).* The Accuracy of the measure determines the degree of concordance between the results of the gauging and the (conventional) true value of that being gauged. The Repeatability reflects the variance of the instrument; the final Capability index which emerges from the two values is named A&R and is compared with the acceptance criteria so as to assess the adequacy of the instrument with regard to the application envisaged and the validation of the method of proof.

***Capability*:** capability indexes used when a process is under "control" and occurs when the process itself is "suitable" in other words capable of producing pieces or services compliant with specific requests or defined requirements.

c_m – c_{mk}: machine capability;

p_p - p_{pk}: Potential capability of the manufacturing process also known as Preliminary capability of the process. It is measured and calculated during the preseries-production;

c_p - c_{pk} capability of the processing process. It is measured and calculated during production, taking into account all the variables: different batches of material, individuals, environment, other.

Special Characteristic: this is any property of the component (size-related, form, mechanical, electrical, physical, chemical or functional) which ensures the quality and reliability of the same if it results within a specific compliance interval.
Each Characteristc, envisaged for the product, is assigned an "Importance class" determined by the gravity of the DFMEA, or rather by the consequences that the possible deviation of this feature from the specific technical prescription may have on the product and on the assembly which the product is intended for; and on the production process (men and machines), of the Supplier, of SPAL Automotive or the end Customer.
This classification is indispensable for the purpose of defining the qualitative levels to be assigned to the characteristc of the product and to the product itself; in fact, it:

- guides in the choice of an adequate production process (machinery, cycles, maintenance and periodic overhaul, etc.);
- leads to a more rational distribution of the controls (equipment, periodic calibration of the instruments, sample plans, types of product/process control and related cycles).

DDT: Bill of Lading

FIFO: (First In First Out*):* Rule for management of a warehouse where the oldest material is withdrawn first in other words that which entered the warehouse first.

FMEA: Failure Mode Effects Analysis ref. www.aiag.org

MSA *(Measurement System Analysis):* Analysis and Valuation of the measuring Systems ref.www.aiag.org

PPAP *Production Part Approval Process*; process for approval of the production product. Production means product created with the means, individuals and conditions of standard production ref. www.aiag.org

PPM: parts per million

PRODUCT: also the service provided will be called product throughout the text. In general, it is the output of the production process of the supplier, which carries out or manufactures: raw materials, production or spare parts, assembly, heat treatments, welding, painting, coatings or other finishings.

PROTOTYPES: Prototypes are understood to be new products, or existing ones however subject to modifications, before being validated from a technical point of view by SPAL Automotive. Before production validation carried out by SPAL Automotive, all the products are prototypes (even if the product, for the supplier, is standard production).

PSW: Part Submission Warrant - Approval request

R&R: *Capability index: (Repeatability and Reproducibility).*The repeatability reflects the variance of the instrument. The reproducibility takes into account the variability due to the operator. The final index which emerges from the two values is named R%R% (Repeatability and Reproducibility percentage) and is compared with the acceptance criteria so as to assess the adequacy of the instrument with regard to the application envisaged.

SPC *(Statistical process Control):* Statistical Process Control is a method which includes a series of instruments mostly statistics effective for preventing many of the potential process anomalies.

15. ANNEX 2 ENCLOSURES

Enclosure 1: Temporary approval request

Enclosure 2: Report

Enclosure 3: Control plan

Enclosure 4: IMDS presentation formalities

Enclosure 5: Modification request

Enclosure 6: MOD 5-1-2 Exception or concession request

Enclosure 7: BIQS

You are hereby reminded that the forms attached hereunder have the purpose of providing support for the presentation of the results, but alternative forms - those of the supplier - will be accepted by SPAL Automotive, provided that they include the same requested information.

Enclosure 1: Temporary approval request

COMPANY LOGO	TEMPORARY APPROVAL REQUEST	No.

INFORMATION ON THE PRODUCT		
PRODUCT NAME:	DRAWING NUMBER	
SAFETY FEATURES AND/OR THOSE SUBJECT TO REGULATION ☐ YES ☐ NO	MODIFICATION LEVEL	DATE
ADDITIONAL PROJECT MODIFICATIONS		DATE
DRAWING REFERENCE / DOCUMENT No.	PURCHASE ORDER No.	MASS (Kg)
CONTROL DEVICE CODE	MODIFICATION LEVEL	DATE

INFORMATION OF THE APPROVAL REQUEST			
☐ SIZE-RELATED	☐ FUNCTIONAL	☐ MATERIAL	☐ APPEARANCE
CUSTOMER		PURCHASING REFERENCE	
APPLICATION / USE			

TEMPORARY SUPPLY REQUEST	_____
QUANTITY TO BE SHIPPED	_____
AND/OR CONCESSION DURATION	_____
REASON FOR REQUEST FOR CONCESSION	
CORRECTIVE ACTION ENVISAGED	
DATE OF ACTIVATION OF CORRECTIVE ACTION	

OPERATOR	POSITION	TEL No._____ FAX No._____
SIGNATURE OF AUTHORISED MANAGER		DATE

SPACE RESERVED FOR CUSTOMER	
TEMPORARY APPROVAL No.	QUANTITY / DURATION AUTHORISED

	NAME	SIGNATURE	DATE	TEL. No.
PURCHASING				
ENGINEERING				
QUALITY				

Enclosure 2: Report

COMPANY LOGO	REPORT	No.
TEST TYPE		
☐ DIMENSIONAL RESULTS	☐ FUNCTIONAL TESTS	☐ MATERIAL ANALYSIS

INFORMATION
SUPPLIER
APPROVAL REQUEST REF. NO.:
CODE / PRODUCT DESCRIPTION:
DRAWING REVIEW INDEX AND NUMBER
TESTER

RESULTS OF THE TESTS

REF.	DIMENSION / ACCEPTANCE CRITERIA	FEAT. TYPE	NO. PIECES TESTED	RESULTS					COMPLIANCE
				PIECE 1	PIECE 2	PIECE 3	PIECE 4	PIECE 5	
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT
									☐ COMPLIANT ☐ NON-COMPLIANT

SIGNATURE	POSITION	DATE

Enclosure 3: Control plan

☐ Prototype ☐ Pre-launch ☐ Production Control plan No.		Key contact/telephone No.	Date (orig.)	Date (rev.)
Register No. /Last change level		Front line team	Technical approval of customer/date (if necessary)	
Register No./Description		Supplier/installation approval date	Approval of customer quality/date (if requested)	
Supplier/Installation	Supplier code	Other approval date (if requested)	Other approvals/date (if requested)	

Part No./ Process	Name of process/ Operation description	Machinery, device, instruments for manufacturing	Features			Class-ification Special characteristics	Methods					Reaction plan
			No.	Product	Process		Specification/ tolerance of product/process	Assessment /measurement technique	Sample		Control method	
									Measurement	Frequency		

Enclosure 4: IMDS presentation formalities

DEFINITIONS

IMDS (International Material Date System): System based on Web technology capable of collecting and handling the information on the chemical composition of all the components in the vehicles.
MDS (Material Data Sheet): An MDS is a logical unit and represents the complete set of information referring to a component / semi-finished product / material.
The MDS worksheet is organised in a complete tree-structure which represents the final configuration.
Each element of the tree is made up of sub-elements: components, semi-finished products, materials, basic substances.
Module: A Module is a logical data unit and contains the information relating to the composition of a component or assembly (ingredient file). It differs from an MDS since it cannot be sent outside one's company.
It can be used to generate structures and handle data within the company, without this being transmitted to third parties. A Module can be used within various MDSs.

RESPONSIBILITY

The first level suppliers must send SPAL Automotive, using the IMDS system, the information relating to the composition of all the products being supplied and are responsible for the data contained the MDSs sent in accordance with self-certification procedure.
The suppliers can in turn involve their sub-contractors in a cascade process so that they are informed on the methods for use of the IMDS system. In turn, the sub-contractors must input in the IMDS system the data relating to components / semi-components / materials supplied to their customers and are responsible for the related content in accordance with self-certification procedure.
If a sub-contractor has not input the data in the IMDS, the first level supplier has the task of doing so in their place.

INTRODUCTION TO THE SYSTEM

The IMDS system is completely based on Web technology and as such is exclusively accessible via a connection to the internet.
http://www.mdsystem.com

- **SYSTEM ENABLING**

The Supplier may request enabling from one of the Help Desks set up by EDS (software house which has developed and which manages the IMDS system) or directly by means of on-line registration; any changes in the contact individuals must be communicated promptly to the Help Desk.

- **CONTACTS AND SUPPORT FOR SUPPLIERS**

IMDS **European** Service Center supporting English and German language
Monday through Friday, 8 a.m. to 4.30 p.m. (GMT+1) under
(+36) 1 298 1536 imds-helpdesk-emea@hp.com

IMDS **French** Service Center supporting French language
Monday through Friday, 8 a.m. to 4.30 p.m. (GMT+1)
under (+33) 1 55 69 7860 imds-helpdesk-emea@hp.com

GUIDELINES FOR THE COMPILATION OF THE DATA SHEETS

- **DATE INPUT**

The Supplier must achieve an MDS for each code subject to supply, identifying it with the related drawing number indicated on the bill of materials, and send it to SPAL Automotive.
SPAL Automotive must be sent just components/products from first level suppliers. Data sheets from sub-contractors will not be accepted.
The Supplier is responsible for the MDS transmitted to the recipient both for the product structure part and for the information input in each level of the structure (components/semi-finished products / materials / substances).
Additionally, the Supplier is responsible for the up-dating and new forwarding of the MDS it is responsible for in the event of product changes which involve a change in the material, the weight or the drawing number.
The information and names of the materials and the components must be inserted in English.

The MDS is made up of four folders: ingredients, money-laundering, supplier data and recipient data.

- **INGREDIENTS: TREE STRUCTURE**

The tree structure of the component / assembly is created in this folder with the inclusion of the information relating to the composition of the supplied product.
The various levels of the structure must be input for each product: sub-components, any semi-finished products, materials and substances, as shown in the diagram below. It is always necessary to insert a material under each component or semi-finished product**: an MDS with the elementary substances linked directly under a component will not be accepted by SPAL Automotive**.
The materials, substances ad MDSs originating from sub-contractors must be imported in the structure with a linking operation using the following keys:

For each individual component, the system must acknowledge just one material: therefore, in the event of alternative design materials, the main material must be input.
The Supplier has the task of compiling and sending the MDSs containing the structure of the parts it is responsible for.

- **INGREDIENTS: COMPONENT RECORD**

When a component (or semi-finished product) is created, it is necessary to insert a record file description in the system; the most important fields for the components are explained below:

- **description**: name of the component in question, it generally coincides with the design/drawing name (which will be inserted in English)
- **number of the article**: internal coding of the supplier
- **effective weight of the article**: measured weight of the supplied product
- **tolerance**: maximum deviation set by the operator between the measured weight and that calculated by the system (in the event of the exceeding of the value, the system reports an error). SPAL Automotive accepts a maximum tolerance of 10%.
- **calculated weight of the article:** in the event of an assembly, the field shows the sum of the weights of the components it is made up of, calculated automatically by the system; in the event of a single component, the field contains the value 0.
- **difference**: value which the system establishes, calculating the difference between the effective weight of the component and that calculated

- **INFORMATION ON RECYCLED MATERIAL**

It is necessary to declare whether the product contains recycled material and if the recycled material comes from industrial processing rejects or from post-use.
It is mandatory to compile the “quantity of recycled material from industrial processing rejects” and the “quantity of recycled material from post-use”.

- **SUPPLIER DATA**

In this field, the supplier must indicate just the contact individual for the system.
This contact must be periodically up-dated so that the same is always whomever sees to the input of the data in the system.

- **IMDS FORWARDING**

In order to send an MDS, the Supplier must insert the production design/drawing number which coincides with the SPAL Automotive article code, on a mandatory basis.
In order to send an MDS, it is necessary to issue the MDS internally and then send it to SPAL Automotive (**ID: 16941**).
Never publish the MDSs to be sent to SPAL Automotive.

TIMESCALES AND FORMALITIES FOR SENDING MDSS

The final sending of the data via the IMDS system is restricted to the approval to produce: in the absence of the data sheet relating to the component, no approval will be given.

Enclosure 5: Modification request

COMPANY LOGO	MODIFICATION REQUEST	No.

SPACE RESERVED FOR SPAL AUTOMOTIVE

PRODUCT NAME:	DRAWING NUMBER

SAFETY FEATURES AND/OR THOSE SUBJECT TO REGULATION

☐ YES ☐ NO

DESCRIPTION OF THE MODIFICATION ☐ PROJECT ☐ MATERIALS ☐ PROCESS

IMPACT ON THE PRODUCT

WILL THE DELIVERIES BE INFLUENCED BY THE MODIFICATION?

☐ YES ☐ NO

INTRODUCTION TIMESCALE AFTER APPROVAL

EQUIPMENT REQUESTED? ☐ YES ☐ NO	COST
CHANGE IN UNIT COST? ☐ YES ☐ NO	COST
SIGNATURE	DATE

SPACE RESERVED FOR CUSTOMER

☐ APPROVED (*)	☐ ACTION REQUESTED / NOTIFICATION No.	☐ NOT APPROVED

BY SIGNATURE	DATE	AGREED WITH SIGNATURE	DATE

APPROVAL OBTAINED FOR ASSIMILATION WITH OTHER SIMILAR CASES ALREADY EXAMINED?

☐ YES ☐ NO

CONTROL LIST OF SUPPLIER ATTACHED?

☐ YES ☐ NO

PAPP REQUEST?

☐ YES ☐ NO

REASON FOR NON-APPROVAL OR ACCEPTANCE BY WAY OF EXCEPTION

CHECKED BY

QUALITY	DATE	PURCHASING	DATE

(*) THE APPROVAL GIVEN MUST BE UNDERSTOOD AS ADVISORY AND DOES NOT ELIMINATE IN ANY WAY THE ORIGINAL RESPONSIBILITY OF SPAL AUTOMOTIVE, WHO ENSURES THAT ALL THE FEATURES DESIGNED ARE CONSISTENT WITH THOSE DEFINED BY THE ENGINEERING AND/OR CORRESPONDING TO THOSE TESTED AND APPROVED AT THE START. SPAL AUTOMOTIVE UNDERTAKES COMPLETE RESPONSIBILITY FOR THE MODIFICATIONS OR TYPES OF MODIFICATIONS INDICATED ABOVE. IF THE RESULT OF THESE MODIFICATIONS INVOLVES A LESS SATISFACTORY PERFORMANCE THAN THAT ORIGINALLY APPROVED, SPAL AUTOMOTIVE WILL BE LIABLE FOR THE CONSEQUENCE VIS-À-VIS THE CUSTOMER.

Enclosure 6: Exception or concession request

SPAL AUTOMOTIVE	request for: ❒exception ❒**CONCESSION**	MOD 5-1-2 Rev 0

DATE:	
SUPPLIER COMPANY NAME:	
ARTICLE CODE:	**ARTICLE DRAWING:**
ARTICLE DESCRIPTION:	

SPAL AUTOMOTIVE ORDER NO.	**DATED**
JOB/WITHDRAWAL NO.	**DATED**
non-compliance:	

REASON FOR EXCEPTION/CONCESSION	
VALIDITY REQUEST FOR	**SIGNATURE OF THE SUPPLIER**
QUANTITY: NO. _____PIECES / GROUPS duration: from _____ until _____	

Enclosure 7: Check List BIQS

BIQS Item	BIQS Requirement	BIQS Calibrator Guidelines (Look For)	Score	Comments
* How to Score - Green: A mature, well-defined, quality system or process is in place, being followed/utilized as directed, and the system or process does not place GM at unnecessary risk. Yellow: Quality system or process is in place, but is not followed/utilized as intended. Red: Quality system or process is not evident, or the current system or process in place puts GM at significant risk.				
		Nonconforming Material / Material Identification		
BIQS -1	**Nonconforming Material / Material Identification** Team members have standardized work and understand what to do with non conforming / suspect material. Conforming material is handled, stored and identified appropriately. Non conforming / suspect material is clearly identified and/or segregated for review/disposition (i.e. appropriate color coding for foot printing – red, yellow, green). A containment method is in place to ensure that an effective breakpoint has been established. Containment activities and results are documented. Traceability is applied according to the traceability methods of the finished product.	Sample audit to verify that team members understand what to do with nonconforming / suspect material. Confirm that conforming material is handled, stored and identified appropriately. Confirm that nonconforming / suspect material is clearly identified and/or segregated. Red, Yellow, Green stoplight approach is adhered to for foot printing, containerization, table marking and tagging. Audit that all parts removed from the process are identified, accounted for (FTQ), and reconciled to eliminate mishandling of material. Verify use of Department Containment Worksheets, with potential parts locations by operation identified to ensure no parts are missed during a containment and all parts are reconciled. The containment worksheets must cover from the incoming material, process and shipment. Scrap or Suspect parts/containers clearly segregated from other parts. Auto Reject stations with Locked reject bins, with controls on how bins are emptied to ensure all parts are reconciled. Parts should be physically tagged or painted for identification purposes and to drive a physical act during handling, which will reduce the chances of mishandling parts. Overall WRO use 5S	0	
		Layered Audit		
BIQS -2	**Layered Audit** Layered audits are in place to assess compliance to standardized processes, identify opportunities for continuous improvement , and provides coaching opportunities. Layered audit process is owned by Management. Audit plan shall include multiple levels of Management. Audits are tracked and their results recorded. Follow up to address non compliance is in place.	Layered Audit is an effective tool to confirm the processes are operating at standard, and enhance continuous improvement. Leadership utilizes an audit process by going and seeing on the shop floor to check process compliance, employee behavior and knowledge. Leadership uses Layered Audit as an opportunity for coaching. Recognition is used to reinforce the right behaviors. Ask Leadership how Layered Audit works in the organization, who is involved in the layered audit process, what is the frequency of layered audits. Is the layered audit sheet content relevant for the user (have each principle calibrator review respective part of the audit sheet)? Layered audit questions are reviewed from time to time to focus on the plant weaknesses. Check that all findings are recorded on the audit sheet and those not solved within the shift are transferred to countermeasure sheets.	0	
		Managing Risk		
BIQS -3	**PFMEAs** All operations have been analyzed for risk using a PFMEA. PFMEA workshops must be done by cross functional teams, including manufacturing team member input. Risk Priority Number (RPN) values must be consistently applied using Severity, Occurrence and Detection ranking tables. Failure modes are comprehended in the PFMEA (i.e. wrong parts, mixed parts, containment control, etc.).	Look for PFMEAs to be available for all operations within the plant. Confirm PFMEA workshops are done by cross functional teams, including mfg. team member input. Confirm RPN values are consistently applied using Severity, Occurrence and Detection ranking tables. Confirm material handling failure modes are comprehended in the PFMEA (i.e. wrong parts, mixed parts, containment control, etc.)	0	
BIQS -4	**PFMEAs - Risk Reduction & Annual Review** Monthly RPN risk reduction reviews by product focused on preventing defects from leaving the work station are held to drive continuous improvement. Action plans for top issues must include: 1. Recommended actions, 2. Responsibility, 3. Timing. Reverse PFMEA process is in place to identify new potential failure mode in the shop floor	Look for evidence of monthly cross functional risk reduction reviews focused on preventing defects from leaving the work station. Confirm action plans for top issues include: 1. Recommended actions, 2. Responsibility, 3. Timing. Plant Management shall be included in top risk reporting and approval of countermeasures. Verify if Reverse PFMEA (On-station reviews) findings are driven back into the Process Flow, PFMEA, Control Plan, and Work Instructions as applicable Best practice cross functional line site review for RPN reductions	0	
BIQS -5	**Bypass / Deviation Management** The plant shall identify manufacturing processes and error proofing devices which can be bypassed or placed in deviation. Risk Priority Number (RPN) for all approved Bypass / deviation processes are evaluated and risks are reviewed. Standard work instructions are available for each Bypass / deviation process. Implemented bypasses/deviations are reviewed in daily Leadership Meeting with the goal to reduce or eliminate bypassed/deviated operations. Processes/devices in bypass / deviation must have a quality focused audits performed. Supplier locations that have a process in bypass/deviation shall have the bypass/deviation process checked on the daily LPA. Restart verification is documented for defined period. It should be 100%	Look for the plant list of manufacturing processes and error proofing devices which can be bypassed or placed in deviation. Confirm that Risk Priority Number (RPN) for all approved bypass / deviation processes are evaluated and that Standardized Work is available for each bypass/deviation process. Supplier locations shall have a written and approved bypass/deviation procedure that includes customer notification. Ensure implemented bypasses/deviations are reviewed in Fast Response with the goal to reduce or eliminate bypassed/deviated operations. Look for evidence of the bypass / deviation checklist being used for processes/devices in bypass.	0	
		Error Proofing		
BIQS -6	**Error proofing Verification** All Error Proofing Devices are checked for function (failure or simulated failure) at the beginning of the shift. Otherwise according to the process control plan. Error Proofing Masters/Challenge parts (when used) are clearly identified. Records of verification are available. When applicable the rabbits part are calibrated.	Confirm that a list of error proofing devices is available. Confirm that the method of the error proofing verification is defined and documented in the standardized work. Verify that all error proofing devices are checked for function (failure or simulated failure) at the beginning of the shift. Otherwise according to the process control plan. Look to see that error proofing masters (when used) are clearly identified. Confirm records of verification are available. Verify that a reaction plan is available in the event of error proofing device failure and is understood by the team member.	0	
		Gage Control		
BIQS -7	**Gage Calibration / Measurement System Analysis** Gage capability (e.g. gage R&R, bias, linearity, stability, etc.) of monitoring and measuring equipment is determined and the equipment is certified/calibrated at a scheduled frequency.	Evidence Gage R&R and certifications are completed on time per local procedure. Check that no gages are past due for calibration. Write down 3 gage numbers at random and verify they are in the gage control system and on some calibration schedule.	0	
		Fast Response		
BIQS -8	**Fast Response Problem Solving Process** Minimum criteria for initiating Fast Response is met. Plant Manager ensures the applicability and the timely completion of the items being tracked. Plant Staff level personnel actively participate in daily meeting. Required documents are reviewed (Fast Response Tracking Sheet, Problem Solving Document, PFMEA, Process control plan, standardized work, Layered audits etc.). Exit criteria with appropriate timing are defined for closing issues. There is read across of corrective actions to like operations.	Verify that the Fast Response process is used for all significant quality issues (customer/Visual inspection station/GP12). Confirm that the Plant Management ensures the applicability and the timely completion of the items being tracked. Confirm that the plant staff level personnel actively participate in daily meeting Verify that the required documents are reviewed and updated (e.g. Fast Response tracking sheet, problem solving document, PFMEA, Process control plan, standardized work, layered audits, lessons learned, etc.)	0	
BIQS -9	**Team Problem Solving Process** A well developed, standardized problem solving process exists at all levels of the organization. Formal problem solving activities are initiated according to a specified criteria. Issues are identified, root causes analyzed and robust actions completed in a timely manner. Problem solving is driven at the Team level and all Teams are involved. Leaders are actively involved coaching and guiding the process.	To provide common methods for solving problems that are understood and used by all. A standardized problem solving process exists. A range of problem solving activities are conducted for different problem types and complexities, including single (special) cause, common (repetitive) cause, as well as more complex multiple-cause problems. Ask to talk through some problems with Team Leaders and Supervisors. Ask how many formal problem solving activities the team has worked on in recent months? Look for all teams should be involved in problem solving activities. Look for a standardized process that includes: issue description and definition, containment, probable cause analysis, root cause analysis (5 Whys), countermeasures, implementation plan, verification, approval to close, and escalation or read across if needed.	0	
BIQS -10	**Quality Focused Checks** High risk items from Critical (Delta) operations have a Quality Focused check performed each shift.	Look for high risk quality focused items from Fast Response, customer feedback and problem solving to be included in the quality focused section of the layered audit, or other suitable checklist and checked each shift. Look for high risk quality focused items from Delta C operations to be included in the quality focused	0	